



## What to do for perioral wrinkles? Perioral bölge kırışıklıklarında ne yapmalı?

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Many different methods have been used recently in the treatment of age-related wrinkles and loss of elasticity in the perioral region<sup>1</sup>. Age-related atrophy reveals itself as barcode lines particularly in the upper part of the lip and volume loss in both lips. Minimally invasive cosmetic concerning the perioral region and the lips together with fast developing devices and product range have led dermatologists to be more concerned about this subject.

Perioral region procedures:

- Radiofrequency,
- Mesotherapy,
- Fractional lasers,
- Platelet rich plasma (PRP),
- Peeling [alpha hydroxy acid (AHA), trichloroacetic acid (TCA)],

- Botulinum toxin applications,
- Fillers.

### Case 1

A 60-year-old female patient was administered 3 sessions of radiofrequency and 3 sessions of mesotherapy for her perioral region wrinkles.

### Radiofrequency procedures

It stimulates collagen synthesis by converting electrical energy to thermal energy in the dermis leading to rejuvenation. Although ablative and non-ablative lasers are generally used in noninvasive applications, radiofrequency procedures are preferred in the recent years as an alternative to these applications by both physicians and patients for having



Pre-treatment



Post treatment

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shorter healing times. Radiofrequency procedures are effective in facial rejuvenation, safe, and well-tolerated<sup>2</sup>. The risk of hyperpigmentation may also be greater after a fractional laser<sup>3</sup>.

### Mesotherapy procedures

It is widely used in Europe, the USA and our country in recent years as an effective method for perioral region rejuvenation. Its mechanism of action involves stimulation of fibroblasts at an optimal physiologic capacity, which increases cellular activity resulting in the restoration of the collagen. Regulation of the tightening, brightness and humidity of the skin enables the person to look younger and healthier. However, since there is very few scientific data on the safety, efficacy, and action mechanisms of the products used in the rejuvenation mesotherapy on the skin, there is a need for further research and studies<sup>4</sup>.

### Case 2

A 58-year-old female patient was administered 3 sessions of fractional Erbium-YAG laser and 3 sessions of PRP therapy for her perioral region wrinkles.



Pre-treatment



Post treatment

### Fractional lasers

They enable the reproduction, restoration and storage of the collagen by way of the tissue ablation they induce by eliminating a portion of the epidermis and/or dermis through a controlled photothermal or photomechanical damage and the residual heat (coagulation) they generate around the ablated tissue<sup>5</sup>.

### Platelet rich plasma (PRP) procedures

PRP started to be used successfully in recent years in the field of cosmetic dermatology on the basis of its wound healing properties. Rich in growth factors, PRP stimulates the production of collagens,

fibroblasts, and other matrix components to enable tissue regeneration (neo-collagenous with transforming growth factor- $\alpha$  and  $\beta$ , and with epidermal growth factor)<sup>6</sup>.

### Case 3

A 43-year-old female patient stated that she was disturbed about slight volume loss in her perioral region and lips. The patient was administered 1 cc filler (hyaluronic acid 17.5 mg/mL) in her perioral and lip regions. The photographs of the patient before and after the treatment were assessed by both the patient and the physician. Only 1 cc filler was applied as the patient wished the procedure to produce a natural outcome. At the end of the first month following the procedure, the patient stated that there was brightness and slight augmentation in her lips and perioral region and she was pleased with it.



Pre-treatment



Post treatment

### Filler procedures

The most important and gold standard procedure for the lips is filler. Implementation of filler procedures in the perioral region in combination with other treatments creates successful results<sup>7</sup>.

In conclusion, we had the belief that although all the above-listed treatments are effective in the treatment of perioral region wrinkles, they have their advantages and disadvantages when compared to each other. - Radiofrequency is a painful procedure, but healing occurring in a short time and the epidermis being affected less are its advantages for both the patient and the physician.

- The fractional laser procedure affects the epidermis directly causing prolongation of the time of patient's healing. It is also not

preferred sometimes by the patient and physician due to the risk of hyperpigmentation in patients with darker skins.

- The mesotherapy and PRP procedures are used for supporting other treatments particularly in older patients.

- The filler procedures really stand out as a gold standard for the lips. A filler procedure applied to the perioral region is preferred more by both the patient and the physician as it shows its effect immediately and in the best way.

## References

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